REMARKS/ARGUMENTS

I.   Introduction

- Claims 1-8 were examined.

- Claims 1-8 remain in this application.

- Claims 1 and 7 are the only independent claims under review.

- Claim 6 stands rejected under 35 U.S.C. 112, first paragraph.

- Claims 1-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Seare et al (US PaW 5,557,514, hereinafter Seare) in view of Ziegele (PG Pub# US2005/0125257, hereinafter Ziegele), and further in view of Lockwood (US Pat#5,706,441, hereinafter Lockwood).

- The abstract is currently amended.

II.   Amendments to the Specification

Applicant thanks the Examiner for pointing out that the abstract was over 150 words. Accordingly, the abstract is amended to reduce the number of words.

II.   Rejections under 35 U.S.C. 112, first paragraph,

Claim 6 stands rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner stated that that "the recited probability denominator comprising a 'plus one' component in

particular - are not described in enough detail to enable one of ordinary skill in the art to understand and apply it." (Office Action, Item 4, Page 3). The Examiner did note that the probability calculation formula is recited in paragraphs [0014] and [0038], but stated "that no supporting detail is available."

Applicant disagrees with these statements. In addition to the recitation recited in paragraphs [0014] and [0038], Applicant would like to direct the Examiners attention to paragraphs [0027] through [0031]. These paragraphs specifically discuss the probability function and its elements. In fact, the recitation in paragraphs [0014] and [0038] describes the formula "$P_{ia} = \alpha S_{ia} / (1+\beta T_{ia})$" found in paragraph [0029]. Therefore, because the specification does support the probability calculation formula in Claim 6, Applicant respectfully requests that the 35 U.S.C. 112, first paragraph rejection against Claim 6 be withdrawn.

II.   Rejections under 35 U.S.C. 103(a)

Claims 1-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Seare et al (US Pat. No. 5,557,514, hereinafter Seare) in view of Ziegele (US Pub. No. US 200510125257, hereinafter Ziegele), and further in view of Lockwood (US Pat. No. 5,706,441, hereinafter Lockwood).

B.   Claim 1

a. The rejection of Claim 1 under 35 U.S.C. 103(a) is improper because Ziegele calculates different probabilities that cannot be used in sub-claim 1(d)(i).

Applicant believes that this rejection of Claim 1 is improper because Ziegele calculates different probabilities that cannot be used in sub-claim 1(d)(i). Ziegele and Claim 1 are directed to different tasks. Ziegele is concerned with "diagnosis-to-prescription relationships." (Ziegele, para. [0014]). Specifically, Ziegele is "creating data links between a plurality of diagnostic information records and a plurality of prescription information records." Id. Claim 1 is concerned with determining if a "multitude of diagnosis records ... belong to a single episode." Sub-claim 1(d)(i).

As a result, Ziegele calculates a different type of probability than claim 1. Ziegele is claiming a correspondence probability between a prescription records and diagnosis records. (Ziegele, para. [0014]). In contrast, Claim 1 is claiming a probability that a "multitude of diagnosis records ... belong to a single episode." Sub-claim 1(d)(i).

Therefore, because Ziegele and Claim1 calculate different probabilities that cannot be used in sub-claim 1(d)(i), withdrawal of this rejection is respectfully requested.

b. The rejection of Claim 1 under 35 U.S.C. 103(a) is improper because there was not a proper motivation to incorporate the teachings of Ziegele into the system of Seare.

The rejection of Claim 1 under 35 U.S.C. 103(a) is improper because there was not a proper motivation to incorporate the teachings of Ziegele into the system of Seare. "To establish a prima facie case of obviousness … there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP 2142

The examiner cited as his motivation to combine Seare and Ziegele "motivation of maintaining updated relationships between diagnostic information records and actual and potential treatment modalities relevant to the diagnosis (Ziegele: [0010]." However, Applicant interprets Ziegele, para. [0010] differently. Applicant believes that this paragraph is reciting a need for the Ziegele invention, basically, a need "for a technique for creating accurate and automatically updated **data linkage** between diagnostic information records **and prescription** information records." Ziegele, para. [0010]. This is not a motivation to calculate a probability that a "multitude of diagnosis records … belong to a single episode." Sub-claim 1(d)(i).

Therefore, because there is not a proper motivation to

incorporate the teachings of Ziegele into the system of Seare,

Applicant respectfully requests that this rejection be withdrawn.

C.   Claim 7

a. The rejection of Claim 7 under 35 U.S.C. 103(a) is improper because Seare does not process claim records in pairs.

Applicant believes that this rejection of Claim 7 is improper

because Seare does not process claim records in pairs. Applicant

recognizes that Seare may process multiple diagnosis records in

generating its profiles. On the other hand, Applicant was unable to

locate one instance in Seare that discloses that diagnosis records are

paired or processed in pairs. On the contrary, Seare processes its

data in bulk. (See Seare, col. 21, lns. 10-36 which summarizes how

Seare processes its bulk data). In fact, Seare discloses that "[i]n the

preferred embodiment of the invention, no less than two years' of

consecutive claims history and about fifty million claims are used to

develop the profiles." Id.

It is an important claimed feature of Claim 7 that diagnosis data

be processed in pairs. In fact, Claim 7 specifically claims "creating at

least one **diagnosis pair** from said multitude of diagnosis records."

Then, Claim 7 recites a multitude of steps that use and process the **diagnosis pairs**. Therefore, because Seare does not disclose processing diagnosis records in pairs, withdrawal of this rejection is respectfully requested.

b. The rejection of Claim 7 under 35 U.S.C. 103(a) is improper because the "staging indicator" in Seare is not the same as a "unique occurrence identifier."

Applicant believes that the rejection of Claim 7 is improper because the "staging indicator" in Seare is not the same as a "unique occurrence identifier" in Claim 7. On page 10 of the Office Action, the Examiner correlates the "staging indicator" of Seare with the "unique occurrence identifier" of Claim 7. In Seare, "[re]cords … are given a staging indicator (i.e. chronic, acute, life-threatening, etc.) associated with the index code to continue in the EOC process in the determination of windows." Seare, Col. 24, lns. 41-44. Basically, the staging indicator in Seare is an indicator of the stage of a diagnosis. See id. However, the "unique occurrence identifier" in Claim 7 has an entirely different function, to act as a unique occurrence identifier to each record in a diagnosis group. See Application, para. 42. In the present application, there should only ever be one record in a

diagnosis group with the same unique occurrence identifier, whereas, in Seare, several records can have the same staging indicator.

Therefore, because the "staging indicator" in Seare is not the same as a "unique occurrence identifier" in Claim 7, withdrawal of this rejection is respectfully requested.

c. The rejection of Claim 7 under 35 U.S.C. 103(a) is improper because the "adjustment factor" in Seare is not the same as a "score numerator in Claim 7.

Applicant believes that the rejection of Claim 7 is improper because the "adjustment factor" in Seare is not the same as a "score numerator" in Claim 7. The adjustment factor cited by the Examiner in Seare, col. 27, lns. 15-27 is used in an "Age/Gender Table" to give age adjusted occurrences for data from patients of various ages. In contrast, the "score numerator" in Claim 7 is used as part of the episode classification process of diagnosis information. See Application, para. 15 and para. 44. Specifically, the "score numerator [is] equal to said co-occurrence value having the same combination of diagnosis information as said time between diagnosis pair value." Claim 7.

Therefore, because the "adjustment factor" in Seare is not the

same as a "score numerator" in Claim 7, withdrawal of this rejection is

respectfully requested.

d. **The rejection of Claim 7 under 35 U.S.C. 103(a) is improper**

because the score calculation is not just a simple "arithmetic

process of division."

Applicant believes that the rejection of Claim 7 is improper

because the score calculation is not just a simple "arithmetic process

of division." See Office Action, pg. 11. In response to the sub-claim

prose "calculating a score for said diagnosis pair by dividing said score

numerator by said time between diagnosis pair value," the Examiner

noted "that the arithmetic process of division is well known." Claim 7,

Office Action, pg. 11. Applicant would like to respond to that by

pointing out that the division is part of a larger process where a

precalculated score numerator is divided by the "time between

diagnosis pair value." This larger process is what is being claimed, not

just mathematical division. In order to reject this limitation, Applicant

believes that the Examiner needs to locate the larger process in the

prior art. Therefore, because the score calculation is not just a simple

"arithmetic process of division," withdrawal of this rejection is

respectfully requested.

C.   *Dependent Claims 2-6 and 8*

Dependent Claims 2-6 and 8 stand rejected under 35 U.S.C. 103(a). However, Applicants believe that independent claims 1 and 7 are now in condition for allowance. Since dependent claims 2-6 depend upon independent Claim 1 including all of its limitations, and dependent Claim8 depends upon independent Claim 7 including all of its limitations, Applicants believe that dependent Claims 2-6 and 8 are also now in condition for allowance. Therefore, for at least the reasons just cited, Applicants respectfully request that the rejections against these claims under 35 U.S.C. 103(a) be withdrawn.

III.   *Conclusion*

For at least all of the reasons advanced above, Applicants respectfully submit that the application is in condition for allowance and that action is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' agent at the telephone number shown below.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 503212.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for an extension for time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 503212.

Respectfully submitted,

/David G. Grossman/

David G. Grossman
Registration No. 42,609

Date: December 8, 2006

George Mason University
Office of Technology Transfer, MSN 5G5
4400 University Drive
Fairfax, VA 22030
(703) 993-4103